



OIPE

RAW SEQUENCE LISTING

DATE: 02/06/2002

PATENT APPLICATION: US/10/050,200

TIME: 19:10:29

Input Set : A:\ort-1417seq1st.txt

Output Set: N:\CRF3\02062002\J050200.raw

3 <110> APPLICANT: Fourie, Anne
 4 Coles, Fawn
 5 Karlsson, Lars
 7 <120> TITLE OF INVENTION: AggreCANase-1 and -2 Peptide Substrates and Methods
 9 <130> FILE REFERENCE: ORT-1417
 C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/050,200
 C--> 11 <141> CURRENT FILING DATE: 2002-01-16
 11 <160> NUMBER OF SEQ ID NOS: 60
 13 <170> SOFTWARE: PatentIn version 3.1
 15 <210> SEQ ID NO: 1
 16 <211> LENGTH: 1359
 17 <212> TYPE: DNA
 18 <213> ORGANISM: Homo sapiens
 20 <220> FEATURE:
 21 <221> NAME/KEY: misc_feature
 22 <222> LOCATION: (1)..(1359)
 23 <223> OTHER INFORMATION: truncated AggreCANase 1
 26 <400> SEQUENCE: 1
 27 gaattcgcca tgtcccagac aggtctgcat cccgggaggg gcttggcagg gcgctggctg 60
 29 tggggagccc aacctgcct cctgctcccc attgtgcgc tctctggct ggtgtggctg 120
 31 cttctgtac tgtggcctc tctctgcc tcagccggc tggccagccc cctccccgg 180
 33 gaggaggaga tegtgttcc agagaagctc aacggcagcg tctgcttg ctcgggcacc 240
 35 cctgccaggc tgtgtgccc cttgcaggcc ttggggaga cgctgtact agagctggag 300
 37 caggactccg gtgtgcaggc cgaggggctg acagtgcagt acctgggcca ggcgcctgag 360
 39 ctgctgggtg gaggcagacc tggcacctac ctgactggca ccatcaatgg agatccggag 420
 41 tcgggtggcat ctctgcactg ggatggggga gccctgttag gcgtgttaca atatcggggg 480
 43 gctgaactcc acctccagcc cctggaggga ggcaccccta actctgctgg gggacctggg 540
 45 gctcacatcc tacgccgga gagtccctgcc agcggtaag gtcccatgtg caacgtcaag 600
 47 gctcctcttg gaagccccag cccagaccc cgaagagcca agcgtttgc ttcactgagt 660
 49 agatttgttg agacactggg ggtggcagat gacaagatgg ccgcattcca cgggtgcggg 720
 51 ctaaagcgct acctgctaac agtgatggca gcagcagcca aggccttcaa gcaccaagc 780
 53 atccgcaatc ctgtcagctt ggtggtgact cggctagtga tcttggggtc aggcgaggag 840
 55 gggccccaag tggggcccag tctgcccag acctgcgca gcttctgtgc ctggcagcgg 900
 57 ggcctcaaca cccctgagga ctgggacct gaccactttg acacagccat tctgtttacc 960
 59 gcgcaggacc tgtgtggagt ctccacttgc gacacgctgg gtatggctga tgtgggcacc 1020
 61 gtctgtgacc cggctcggag ctgtgccatt gtggaggatg atgggctcca gtcagccttc 1080
 63 actgctgtc atgaactggg tcatgtcttc aacatgtctc atgacaactc caagccatgc 1140
 65 atcagtttga atgggccttt gagcacctct cgcctgttca tggccctgt gatggctcat 1200
 67 gtggatcctg aggagccctg gtccccctgc agtgcccgt tcatcactga cttcttgac 1260
 69 aatggctatg ggcactgtct cttagacaaa ccagaggctc cattgcatct gcctgtgact 1320
 71 ggggactaca aggacgacga tgacaaggg taggtcgac 1359
 74 <210> SEQ ID NO: 2
 75 <211> LENGTH: 1516

ENTERED

RAW SEQUENCE LISTING

DATE: 02/06/2002

PATENT APPLICATION: US/10/050,200

TIME: 19:10:29

Input Set : A:\ort-1417seq1st.txt

Output Set: N:\CRF3\02062002\J050200.raw

```

76 <212> TYPE: DNA
77 <213> ORGANISM: Homo sapiens
79 <220> FEATURE:
80 <221> NAME/KEY: misc_feature
81 <222> LOCATION: (1)..(1516)
82 <223> OTHER INFORMATION: truncated Aggrecanase-2
85 <400> SEQUENCE: 2
86 gtcgacgcag cgcactatgc tgctcgggtg ggcgtccctg ctgctgtgcg cgttcgcctt      60
88 gcccctggcc gcggtcggcc ccgcgcgcac acctgcccag gataaagccg ggcagcctcc      120
90 gactgctgca gcagccgccc agccccgcgc gcggcagggg gaggaggtgc aggagcgagc      180
92 cgagcctccc ggccacccgc acccctggc gcagcggcgc aggagcaagg ggctggtgca      240
94 gaacatcgac caactctact ccggcggcgc caaggtgggc tacctcgtct acgcgggcgc      300
96 ccgcaggttc ctcttgacc tggagcgaga tggttcgggtg ggcattgctg gcttcgtgcc      360
98 cgcaggaggc gggacgagtg cgcctggcg ccaccggagc cactgcttct atcggggcac      420
100 agtggacggt agtccccgct ctctggctgt ctttgacctc tgtgggggtc tcgacggctt      480
102 cttcgcggtc aagcacgcgc gctacacct aaagccactg ctgcgcggac cctgggcgga      540
104 ggaagaaaag gggcgcgtgt acggggatgg gtccgcacgc atcctgcacg tctacaccgc      600
106 cgagggcttc agcttcgagg ccctgcgcgc gcgcgcacgc tgcgaaacc ccgcgtccac      660
108 accggaggcc cagcagcatg ctccggcgca cagcaaccgc agcggacgcg cagcactggc      720
110 ctgcagctc ttggaccagt ccgctctctc gcccgtggg ggctcaggac cgcagacgtg      780
112 gtggcggcgc cggcgcgcgt ccctctccgc ggcccgcag gtggagctgc ttctggtggc      840
114 tgacgcgtcc atggcgcgtt tgtatggcgc gggcctgcag cattacctgc tgacctggc      900
116 ctccatgcgc aataggctgt acagccatgc tagcatcgag aaccacatcc gcctggccgt      960
118 ggtgaagggt gtggtgctag gcgacaagga caagagcctg gaagtgcgca agaacgctgc      1020
120 caccacactc aagaactttt gcaagtggca gcaccaacac aaccagctgg gagatgacca      1080
122 tgaggagcac tacgatgcag ctatcctgtt tactcgggag gatttatgtg ggcattctc      1140
124 atgtgacacc ctgggaatgg cagacgttgg gaccatatgt tctccagagc gcagctgtgc      1200
126 tgtgattgaa gacgatggcc tccacgcagc cttcactgtg gctcacgaaa tcggacattt      1260
128 acttgccctc tcccatgacg attccaaatt ctgtgaagag acctttggtt ccacagaaga      1320
130 taagcgttta atgtcttcca tcttaccag cattgatgca tctaagccct ggtccaaatg      1380
132 cacttcagcc accatcacag aattcctgga tgatggccat ggtaactgtt tgcctggacct      1440
134 accacgaaag cagatcctgg gcggggacta caaggacgac gatgacaagg ggtagaagct      1500
136 tgcgagaag tactag
139 <210> SEQ ID NO: 3
140 <211> LENGTH: 11
141 <212> TYPE: PRT
142 <213> ORGANISM: Artificial Sequence
144 <220> FEATURE:
145 <223> OTHER INFORMATION: peptide substrate
147 <400> SEQUENCE: 3
149 Lys Glu Leu Ala Glu Leu Arg Glu Ser Thr Ser
150 1 5 10
153 <210> SEQ ID NO: 4
154 <211> LENGTH: 11
155 <212> TYPE: PRT
156 <213> ORGANISM: Artificial Sequence
158 <220> FEATURE:
159 <223> OTHER INFORMATION: Peptide substrate
161 <400> SEQUENCE: 4

```

RAW SEQUENCE LISTING

DATE: 02/06/2002

PATENT APPLICATION: US/10/050,200

TIME: 19:10:29

Input Set : A:\ort-1417seq1st.txt

Output Set: N:\CRF3\02062002\J050200.raw

```

163 Ala Asp Leu Ser Ser Phe Lys Ser Gln Glu Leu
164 1          5          10
167 <210> SEQ ID NO: 5
168 <211> LENGTH: 10
169 <212> TYPE: PRT
170 <213> ORGANISM: Artificial sequence
172 <220> FEATURE:
173 <223> OTHER INFORMATION: Peptide substrate
175 <400> SEQUENCE: 5
177 Glu Lys Ala Arg Val Leu Ala Glu Ala Ala
178 1          5          10
181 <210> SEQ ID NO: 6
182 <211> LENGTH: 10
183 <212> TYPE: PRT
184 <213> ORGANISM: Artificial Sequence
186 <220> FEATURE:
187 <223> OTHER INFORMATION: Peptide Substrate
189 <400> SEQUENCE: 6
191 Glu Lys Ala Arg Val Leu Ala Glu Ala Met
192 1          5          10
195 <210> SEQ ID NO: 7
196 <211> LENGTH: 13
197 <212> TYPE: PRT
198 <213> ORGANISM: Artificial Sequence
200 <220> FEATURE:
201 <223> OTHER INFORMATION: Peptide substrate
203 <400> SEQUENCE: 7
205 Glu Arg Ala Glu Gln Gln Arg Leu Lys Ser Gln Asp Leu
206 1          5          10
209 <210> SEQ ID NO: 8
210 <211> LENGTH: 447
211 <212> TYPE: PRT
212 <213> ORGANISM: Homo sapiens
214 <220> FEATURE:
215 <221> NAME/KEY: MISC_FEATURE
216 <222> LOCATION: (1)..(447)
217 <223> OTHER INFORMATION: truncated Aggreanase 1
220 <400> SEQUENCE: 8
222 Met Ser Gln Thr Gly Ser His Pro Gly Arg Gly Leu Ala Gly Arg Trp
223 1          5          10          15
226 Leu Trp Gly Ala Gln Pro Cys Leu Leu Leu Pro Ile Val Pro Leu Ser
227          20          25          30
230 Trp Leu Val Trp Leu Leu Leu Leu Leu Ala Ser Leu Leu Pro Ser
231          35          40          45
234 Ala Arg Leu Ala Ser Pro Leu Pro Arg Glu Glu Glu Ile Val Phe Pro
235          50          55          60
238 Glu Lys Leu Asn Gly Ser Val Leu Pro Gly Ser Gly Thr Pro Ala Arg
239 65          70          75          80
242 Leu Leu Cys Arg Leu Gln Ala Phe Gly Glu Thr Leu Leu Leu Glu Leu

```

RAW SEQUENCE LISTING

DATE: 02/06/2002

PATENT APPLICATION: US/10/050,200

TIME: 19:10:29

Input Set : A:\ort-1417seq1st.txt

Output Set: N:\CRF3\02062002\J050200.raw

```

243          85          90          95
246 Glu Gln Asp Ser Gly Val Gln Val Glu Gly Leu Thr Val Gln Tyr Leu
247          100          105          110
250 Gly Gln Ala Pro Glu Leu Leu Gly Gly Ala Glu Pro Gly Thr Tyr Leu
251          115          120          125
254 Thr Gly Thr Ile Asn Gly Asp Pro Glu Ser Val Ala Ser Leu His Trp
255          130          135          140
258 Asp Gly Gly Ala Leu Leu Gly Val Leu Gln Tyr Arg Gly Ala Glu Leu
259 145          150          155          160
262 His Leu Gln Pro Leu Glu Gly Gly Thr Pro Asn Ser Ala Gly Gly Pro
263          165          170          175
266 Gly Ala His Ile Leu Arg Arg Lys Ser Pro Ala Ser Gly Gln Gly Pro
267          180          185          190
270 Met Cys Asn Val Lys Ala Pro Leu Gly Ser Pro Ser Pro Arg Pro Arg
271          195          200          205
274 Arg Ala Lys Arg Phe Ala Ser Leu Ser Arg Phe Val Glu Thr Leu Val
275          210          215          220
278 Val Ala Asp Asp Lys Met Ala Ala Phe His Gly Ala Gly Leu Lys Arg
279 225          230          235          240
282 Tyr Leu Leu Thr Val Met Ala Ala Ala Lys Ala Phe Lys His Pro
283          245          250          255
286 Ser Ile Arg Asn Pro Val Ser Leu Val Val Thr Arg Leu Val Ile Leu
287          260          265          270
290 Gly Ser Gly Glu Glu Gly Pro Gln Val Gly Pro Ser Ala Ala Gln Thr
291          275          280          285
294 Leu Arg Ser Phe Cys Ala Trp Gln Arg Gly Leu Asn Thr Pro Glu Asp
295          290          295          300
298 Ser Asp Pro Asp His Phe Asp Thr Ala Ile Leu Phe Thr Arg Gln Asp
299 305          310          315          320
302 Leu Cys Gly Val Ser Thr Cys Asp Thr Leu Gly Met Ala Asp Val Gly
303          325          330          335
306 Thr Val Cys Asp Pro Ala Arg Ser Cys Ala Ile Val Glu Asp Asp Gly
307          340          345          350
310 Leu Gln Ser Ala Phe Thr Ala Ala His Glu Leu Gly His Val Phe Asn
311          355          360          365
314 Met Leu His Asp Asn Ser Lys Pro Cys Ile Ser Leu Asn Gly Pro Leu
315          370          375          380
318 Ser Thr Ser Arg His Val Met Ala Pro Val Met Ala His Val Asp Pro
319 385          390          395          400
322 Glu Glu Pro Trp Ser Pro Cys Ser Ala Arg Phe Ile Thr Asp Phe Leu
323          405          410          415
326 Asp Asn Gly Tyr Gly His Cys Leu Leu Asp Lys Pro Glu Ala Pro Leu
327          420          425          430
330 His Leu Pro Val Thr Gly Asp Tyr Lys Asp Asp Asp Asp Lys Gly
331          435          440          445
334 <210> SEQ ID NO: 9
335 <211> LENGTH: 492
336 <212> TYPE: PRT
337 <213> ORGANISM: Homo sapiens

```

RAW SEQUENCE LISTING

DATE: 02/06/2002

PATENT APPLICATION: US/10/050,200

TIME: 19:10:29

Input Set : A:\ort-1417seq1st.txt

Output Set: N:\CRF3\02062002\J050200.raw

```

339 <220> FEATURE:
340 <221> NAME/KEY: MISC_FEATURE
341 <222> LOCATION: (1)..(492)
342 <223> OTHER INFORMATION: truncated AggreCanse-2
345 <400> SEQUENCE: 9
347 Met Leu Leu Gly Trp Ala Ser Leu Leu Leu Cys Ala Phe Arg Leu Pro
348 1 5 10 15
351 Leu Ala Ala Val Gly Pro Ala Ala Thr Pro Ala Gln Asp Lys Ala Gly
352 20 25 30
355 Gln Pro Pro Thr Ala Ala Ala Ala Ala Gln Pro Arg Arg Arg Gln Gly
356 35 40 45
359 Glu Glu Val Gln Glu Arg Ala Glu Pro Pro Gly His Pro His Pro Leu
360 50 55 60
363 Ala Gln Arg Arg Arg Ser Lys Gly Leu Val Gln Asn Ile Asp Gln Leu
364 65 70 75 80
367 Tyr Ser Gly Gly Gly Lys Val Gly Tyr Leu Val Tyr Ala Gly Gly Arg
368 85 90 95
371 Arg Phe Leu Leu Asp Leu Glu Arg Asp Gly Ser Val Gly Ile Ala Gly
372 100 105 110
375 Phe Val Pro Ala Gly Gly Gly Thr Ser Ala Pro Trp Arg His Arg Ser
376 115 120 125
379 His Cys Phe Tyr Arg Gly Thr Val Asp Gly Ser Pro Arg Ser Leu Ala
380 130 135 140
383 Val Phe Asp Leu Cys Gly Gly Leu Asp Gly Phe Phe Ala Val Lys His
384 145 150 155 160
387 Ala Arg Tyr Thr Leu Lys Pro Leu Leu Arg Gly Pro Trp Ala Glu Glu
388 165 170 175
391 Glu Lys Gly Arg Val Tyr Gly Asp Gly Ser Ala Arg Ile Leu His Val
392 180 185 190
395 Tyr Thr Arg Glu Gly Phe Ser Phe Glu Ala Leu Pro Pro Arg Ala Ser
396 195 200 205
399 Cys Glu Thr Pro Ala Ser Thr Pro Glu Ala His Glu His Ala Pro Ala
400 210 215 220
403 His Ser Asn Pro Ser Gly Arg Ala Ala Leu Ala Ser Gln Leu Leu Asp
404 225 230 235 240
407 Gln Ser Ala Leu Ser Pro Ala Gly Gly Ser Gly Pro Gln Thr Trp Trp
408 245 250 255
411 Arg Arg Arg Arg Arg Ser Ile Ser Arg Ala Arg Gln Val Glu Leu Leu
412 260 265 270
415 Leu Val Ala Asp Ala Ser Met Ala Arg Leu Tyr Gly Arg Gly Leu Gln
416 275 280 285
419 His Tyr Leu Leu Thr Leu Ala Ser Ile Ala Asn Arg Leu Tyr Ser His
420 290 295 300
423 Ala Ser Ile Glu Asn His Ile Arg Leu Ala Val Val Lys Val Val Val
424 305 310 315 320
427 Leu Gly Asp Lys Asp Lys Ser Leu Glu Val Ser Lys Asn Ala Ala Thr
428 325 330 335
431 Thr Leu Lys Asn Phe Cys Lys Trp Gln His Gln His Asn Gln Leu Gly
432 340 345 350

```

Use of n and/or Xaa has been detected in the Sequence Listing.
 Review the Sequence Listing to insure a corresponding
 explanation is presented in the <220> to <223> fields of
 each sequence using n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/050,200

DATE: 02/06/2002

TIME: 19:10:30

Input Set : A:\ort-1417seq1st.txt

Output Set: N:\CRF3\02062002\J050200.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:865 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37